## REMARKS

Claims 1-25 are pending in the current application. Of those, claims 1, 6, 9, 11, 13, 15, 18, and 21 are independent claims. Claims 1-6, 8-9, 11-19, and 21-23 are amended by this Response. No claims are canceled by this Response. Example support for the amendments herein may be found at Figs. 4-7 and Para. [0047-0065] of Applicants' application

## Example Embodiments

Before specifically addressing comments included in the Final Office Action mailed March 27, 2008, and the specific art rejections, Applicants believe the following description of example embodiments, as well as the advantages thereof, as shown in Figs. 4-7 and disclosed at Para. [0047-0065] of Applicants' application, will increase the Examiner's understanding of the Applicants' disclosure and claims. In example embodiments, a final video image includes both video data and additional data. The additional data may further include graphic data and subtitle data. Thus, the video image may include the video data, graphic data and subtitle data. The video data is represented on a video plane and the additional data is represented on sub-planes, such as a graphic sub-plane and a subtitle plane.

On a sub-plane, there are separate regions for representing the additional data (graphic data and subtitle data), which do not overlap within the sub-plane. The same regions may be applied to other planes so that while the regions do not overlap within the same plane, the regions may overlap with regions from other planes. For example, if there are two regions, GR1 and GR2, in the graphic plane and there are two regions, SR1 and SR2, in the subtitle plane, GR1 and and SR1 may overlap but GR1 and GR2 would not overlap. Generally, representing overlapped graphic data on a single plane requires complex logic. Example embodiments allow overlapped graphic data to be represented with reduced complexity. For instance, using the

above example, assume graphic data is allocated to the region GR1 of the graphic plane, subtitle

data is allocated to the region SR2 of the subtitle plane and icon data is allocated to the region

SR1 of the subtitle plane. A final video image may be constructed by overlaying the video

plane, graphic plane, and subtitle plane.

## Claim Rejections under 35 U.S.C § 103

Claims 1-2 and 4-25

Claims 1-2 and 4-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over

U.S. Patent Publication 2002/0095531 to Mori et al. ("Mori") in view of U.S. Patent Publication

2003/0117529 to De Haan ("De Haan"). Applicants respectfully traverse this rejection.

Claim 1 recites *inter alia*, "additional data is included in a plurality of **distinct _regions_**

**that do _not_ overlap with each other…**wherein the additional data is included in a plurality of

*sub-planes* **based on a type of the additional data, each of the sub-planes including at least**

**one of the distinct regions**." At Pg. 3 of the Office Action, the Examiner admits that "Mori

does not disclose that the additional data is divided and organized into the **plurality of _regions_**

**based on positions where the additional data is to be displayed**." Further, as disclosed at

Para. [0079-0080], Mori only discloses a "compositor [87] for overlaying the graphic signal on

the digital video signal," where the graphic signal, for example, is produced by multiplexing data

from multiple decoders into a **single** stream. Thus, not only does Mori fail to disclose dividing

and organizing data into a plurality of regions based on a position of the data to be displayed, as

the Examiner admits, but Mori also fails to disclose "**distinct _regions_ that do _not_ overlap with**

**each other**" and that "the additional data is included in a plurality of *sub-planes* **based on a**

**type of the additional data, each of the sub-planes including at least one of the distinct**

**regions**," as recited in claim 1.

Moreover, the Examiner relies on a "private stream 1" disclosed at Para. [0028] of De Haan to disclose the "plurality of regions" of claim 1. However, as disclosed at Para. [0028-0029] of De Haan, the additional "private stream 1" is only disclosed to be "packets" used to provide "[i]nformation of a type not specified by MPEG," such as "subtitles," which include "overlay information." Thus, De Haan only discloses that subtitle information may be provided in a separate packet stream than that of the MPEG stream. Thus, the "**private stream 1" of De Haan does not represent non-overlapping regions within a plane**. As such, De Haan fails to disclose "**distinct *regions* that do *not* overlap with each other**" and that "the additional data is included in a plurality of *sub-planes* **based on a type of the additional data, each of the sub-planes including at least one of the distinct regions**," as recited in claim 1.

As neither Mori nor De Haan disclose **distinct, non-overlapping regions within a plane**, Mori and De Haan also fail to disclose that, "each of the distinct regions of each of the sub-planes includes an **object** so that the additional data of **each of the regions of each of the sub-planes are configured to be overlaid in the video image**," as recited in claim 1.

Claim 6 recites *inter alia*, "recording the additional data as a plurality of individual, parallel streams on the recording medium **such that two types of additional data included in a same region are respectively recorded in two separate parallel streams, and two types of additional data included in different regions in a same plane are recorded in a same stream in serial**." As described above, neither Mori nor De Haan disclose recording data according to **distinct regions that do not overlap within a plane**. Further, as disclosed at Para. [0080], Mori only discloses decoding a **single** "MPEG program **stream** recorded on the DVD." Also, as disclosed at Para. [0028] of De Haan, the two streams "private stream 1" and "private stream 2" are only differentiated based on whether there is a "additional header of a prescribed format." Thus, **neither Mori nor De Haan disclose generating streams based on a position of data**

**within a region of a plane**. As such, similar to claim 1, Mori and De Haan also fail to disclose "two types of additional data included in the *same region* **are respectively recorded in two** *separate parallel* **streams**, and two types of additional data included in *different regions* **in the same plane are recorded in the *same* stream in *serial*,**" as recited in claim 6.

For at least the foregoing reasons, claims 1 and 6 are patentable over Mori and De Haan. Even assuming arguendo that Mori and De Haan are combinable (which Applicants do not admit), De Haan still fails to remedy the deficiencies of Mori with respect to claims 1 and 6. Independent claims 9, 13, 18, and 21 recite similar limitations to claim 1 and therefore are patentable for at least the reasons stated above with respect to claim 1. Independent claims 11 and 15 recite similar limitations to claim 6 and therefore are patentable for at least the reasons stated above with respect to claim 6. Dependent claims 2, 4-5, 7-8, 10, 12, 14, 16-17, 19-20 and 22-25 are patentable at least by virtue of their dependency on one of independent claims 1, 6, 9, 11, 13, 15, 18, and 21. Applicants, therefore, respectfully request that the rejection to the above claims under 35 U.S.C. § 103(a) be withdrawn.

Claim 3

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mori in view of De Haan as applied to claims 1, 6, 9, 11, 13, 15, 18, and 21 above, and further in view of U.S. Patent Publication 2003/0081931 to Nanba ("Nanba"). Applicant respectfully traverses this rejection.

Even assuming arguendo that Mori, De Haan and Nanba are combinable (which Applicants do not admit), Nanba still fails to remedy the deficiencies of De Haan and Mori with respect to claim 1. Dependent claim 3 is patentable at least by virtue of its dependency on

independent claim 1. Applicants, therefore, respectfully request that the rejection to the above claim under 35 U.S.C. § 103(a) be withdrawn.

## CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the claims in connection with the present application is earnestly solicited.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a two (s) month extension of time for filing a reply to the outstanding Office Action and submit the required $460 extension fee herewith.
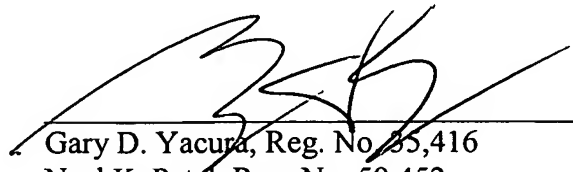
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gary D. Yacura at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

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